

**CLAIMS**

1. An uncrosslinked blend composition comprising a dispersed phase of a crystalline polymer component in a continuous phase of a crystallizable polymer component wherein:
  - a) the crystalline polymer component is dispersed in phases less than  $3\mu\text{m} \times 3\mu\text{m} \times 100\mu\text{m}$  in size,
  - b) the blend composition has greater than 65% propylene by weight,
  - c) the blend comprises greater than 1% but less than 40% of a crystalline first polymer component and the balance of a crystallizable second polymer component, such crystallinity being due to stereoregular propylene,
  - (d) both first and second polymer component contain stereoregular propylene of similar tacticity, and
  - (e) the blend has a tensile elongation greater than 650%.
2. The composition of claim 1 wherein an additional second polymer composition, intermediate in melting point and heat of fusion between the first polymer component and the second polymer component is added, and wherein said additional second polymer component comprises stereoregular polypropylene of similar tacticity to the first and second polymer component.
3. The composition of claim 1 wherein the stereoregular polypropylene is isotactic polypropylene.
4. The composition of claim 1 wherein the first polymer component is isotactic polypropylene homopolymer or a copolymer of propylene and a comonomer selected from the group consisting of  $\text{C}_2$  and  $\text{C}_4\text{-C}_{20}$   $\alpha$ -olefins.

5. The composition of claim 1 wherein the first polymer component has a melting point by DSC equal to or above 115° C.
6. The composition of claim 1 wherein the second polymer component has a heat of fusion less than 75 J/g.
7. The composition of claim 1 wherein the second polymer component is comprised of from about 6% by weight to about 35% by weight ethylene.
8. The composition of claim 1 wherein the second polymer component has a melting point by DSC between about 30° C and about 100° C.
9. The composition of claim 1 wherein the second polymer component has a molecular weight distribution of about 2.0 to about 3.2.
10. The composition of claim 1 wherein the second polymer component is made in a solution polymerization process.
11. The composition of claim 1 wherein the first polymer component has a melting point equal to or greater than about 130°C and the second polymer component has a melting point equal to or less than about 100°C.
12. The composition of claim 1 additionally comprising process oil.
13. The composition of claim 1 wherein the glass transition temperature of the blend is lower than the glass transition temperature of the second polymer component.

14. The composition of claim 1 having a tension set from 200% extension equal to or less than  $0.02M + 5$  wherein M is 500% modulus expressed in  $\text{lbs/inch}^2$ .
- 5 15. The composition of claim 1 having a tension set from 200% extension equal to or less than  $0.0108M + 3$  wherein M is 500% modulus expressed in  $\text{lbs/inch}^2$ .
- 10 16. The composition of claim 1 having a tension set from 200% extension equal to or less than  $0.0052M + 2$  wherein M is 500% modulus expressed in  $\text{lbs/inch}^2$ .
- 15 17. The composition of claim 1 having a flexural modulus in  $\text{kpsi.in/in}$  equal to or less than  $0.013M - 1.3$  wherein M is 500% modulus expressed in  $\text{lbs/inch}^2$ .
18. The composition of claim 1 having a flexural modulus in  $\text{kpsi.in/in}$  equal to or less than  $0.0083M - 1.6$  wherein M is 500% modulus expressed in  $\text{lbs/inch}^2$ .
- 20 19. The composition of claim 1 having a flexural modulus in  $\text{kpsi.in/in}$  equal to or less than  $0.0062M - 2.5$  wherein M is 500% modulus expressed in  $\text{lbs/inch}^2$ .
- 25 20. The composition of claim 1 wherein said composition has been aged.
21. The composition of claim 1 wherein said composition has been crosslinked.

22. The composition of claim 1 wherein said composition has been oriented.

23. An article of manufacture comprising the composition of claim 22.

5 24. The article of claim 23 having a tension set equal to or less than  $0.011M + 3$  wherein M is 500% modulus expressed in  $\text{lbs/inch}^2$ .

25. The article of claim 23 having a tension set equal to or less than  $0.0057M + 2$  wherein M is 500% modulus expressed in  $\text{lbs/inch}^2$ .

10

26. The article of claim 23 having a tension set equal to or less than  $0.0035M + 1$  wherein M is 500% modulus expressed in  $\text{lbs/inch}^2$ .

15

27. The article of claim 23 having a flexural modulus in  $\text{kpsi.in/in}$  equal to or less than  $0.013M - 1.3$  wherein M is 500% modulus expressed in  $\text{lbs/inch}^2$ .

28. The article of claim 23 having a flexural modulus in  $\text{kpsi.in/in}$  equal to or less than  $0.0083M - 1.6$  wherein M is 500% modulus expressed in  $\text{lbs/inch}^2$ .

20

29. The article of claim 23 having a flexural modulus in  $\text{kpsi.in/in}$  equal to or less than  $0.0062M - 2.5$  wherein M is 500% modulus expressed in  $\text{lbs/inch}^2$ .

30. The article of claim 23 wherein said composition is aged.

25

31. The article of claim 23 wherein said composition is crosslinked.